

## STATE OF WASHINGTON

## DEPARTMENT OF ECOLOGY

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February 14, 2003

Ms. Jan Brower
Solid and Hazardous Waste Manager
Bremerton-Kitsap County Health Department
19540 Front Street
P. O. Box 1076
Poulsbo, WA 98370-0050

Your address is in the **Kitsap** watershed

Dear Ms. Brower:

Subj: Gorst Landfill Geotechnical and Environmental Concerns

Thank you for your email request of May 24, 2002, and subsequent verbal requests to the State of Washington, Department of Ecology (Ecology) regarding the Gorst Landfill. I apologize for delay in responding to your request to have Ecology take action to mitigate the geotechnical and environmental threats posed by the Gorst Landfill near Gorst, Washington. Before responding, I wanted to ensure I had reviewed all the information available in order to evaluate your request.

I have fully reviewed the geotechnical and environmental information in our files and the information that you provided Ecology. Based upon the available information, I have concluded that the potential landfill slope failure into Gorst Creek is primarily a geotechnical problem and less a toxic site cleanup issue. Because the problem is geotechnical, the landfill slope should be stabilized by the landfill owner. If the owners are unable or unwilling to stabilize the landfill slope that threatens to block Gorst Creek, it is Ecology's position that Kitsap County is the appropriate agency to ensure that the weakened slope is stabilized.

Attached for your information, is a copy of a final report of geotechnical evaluation for slope stabilization. This evaluation was prepared for the Washington State Department of Transportation in 1997. The cost estimate will need to be updated.

In addition to the geotechnical issues related to the landfill, it may be affecting the surface water, creek sediments, and ground water. The available information indicates elevated concentrations of chemicals that may be due to contamination from the landfill. The U.S. EPA has agreed to conduct a Preliminary Assessment of the site to determine the degree of environmental impact and to determine whether the chemical concentrations may be traced to the landfill. A copy of the EPA letter is attached for your information.

Careful examination of the March 1, 2002, site hazard assessment (SHA) conducted by the Bremerton Kitsap County Health District shows ambiguity in the direction of ground-water flow. There is uncertainty as to the potential impacts of any contaminant migration from the landfill into the groundwater system in the vicinity of Gorst Landfill. For example, the



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SHA indicates ground water in the area travels predominately to the northeast and the SHA indicates three production wells lie to the direct northeast of the landfill. The ground-water flow direction, and implication that production wells may be affected by the landfill, is not consistent with the findings of the Draft Site Hazard Assessment prepared by HartCrowser for the Department of the Navy Engineering Field Activity, Northwest, dated March 28, 2000. The Navy SHA concludes ground-water flow in the Uplands Aquifer is to the northwest, not the northeast. Furthermore, the Navy SHA concludes that ground water in the Uplands Aquifer likely flows toward the Gorst Valley. The findings of the Navy SHA also indicates that it seems probable that little of the precipitation or surface water moving through the fill would move into the ground-water system at this location.

Since the SHA completed by the Bremerton Kitsap County Health District relied heavily on the data from the Navy SHA, it is Ecology's opinion that Kitsap County should conduct an environmental investigation to address uncertainties in the ground-water flow system in the vicinity of the landfill. Before the Department of Ecology can assist Kitsap County in any cleanup action, a careful investigation of the affected media should be conducted by Kitsap County.

In addition, because this private landfill was permitted by Kitsap County, the terms of the permit may provide the County with appropriate enforcement authority to ensure the owner properly closes the landfill. It is Ecology understanding that this landfill has not been in operation since 1989 and should therefore be properly closed. See also WAC 173-304-407.

In sum, Ecology's position is that the Gorst Landfill presents primarily geotechnical issues which should be resolved through proper closure of the landfill. Should the U.S. EPA's assessment determine that there are contaminant issues requiring action, Ecology will cooperate with EPA and Kitsap County to better identify the environmental impacts of the landfill.

If you wish to discuss this further, please do not hesitate to call me at (425) 649-7134 or by email at cwan461@ecy.wa.gov

Sincerely,

Ching-Pi Wang

Toxics Cleanup Program

CPW:dh

cc: Joanne LaBaw, US EPA

Mike Dunning, AAG Steve Alexander, Ecology Michael Spencer, Ecology